A committee has been formed with the object of raising a suitable memorial to the late Professor Sir William Ramsay, K.C.B., F.R.S., by collecting a substantial fund to be utilized for the purpose of promoting chemical teaching and research.

The committee, after prolonged and careful consideration, has resolved to aim at raising a sum of £100,000, and to devote that sum to two principal objects, viz.:

1. The provision of Ramsay research fellowships, tenable wherever the necessary equipment may be found.

2. The establishment of a Ramsay Memorial Laboratory of Engineering Chemistry in connection with University College, London.

We should hesitate to ask for so large a sum of money in such exceptionally difficult times, were it not that the objects specified are objects of real and urgent national importance. The war has demonstrated in a manner previously unrealized the supreme importance of scientific, and, in particular chemical, research to the national life, both in the conduct of the war and in the pursuits of industry and manufacture.

The late Sir William Ramsay was himself engaged up to within a comparatively short time of his death in various important problems concerned with the bearing of chemistry upon the war, and no one realized more completely than he the potentialities of the plans which have since been formulated by this committee as a memorial to him.

It is important that the fund should be raised speedily, so that the plans for the laboratory of engineering chemistry and the scheme for the award of fellowships may be prepared before the end of the war, and so that both schemes may begin to operate with as little delay as possible after the return of peace.

Accordingly, we desire, through the columns of your paper, to appeal to friends and admirers of the late Sir William Ramsay, to old students, and to all persons who are interested in chemistry and its application to industry and manufacture, to contribute to this great national and international memorial to the late Sir William Ramsay, and to send their subscriptions to the honorable treasurers of the Ramsay Memorial Fund at University College, London, W.C.1.

H. H. ASQUITH, *President;*

D. LLOYD GEORGE,
GAINFORD,
RAYLEIGH,
REAY,
ROSEBERY,
H. A. L. FISHER,
J. J. THOMSON, } *Vice-presidents;*

HUGH BELL, *Chairman of the Executive Committee;*

GLENCONNER, *Treasurer.*

It is stated in *Nature* that the sum already subscribed by Ramsay's friends, and through their private efforts, amounts to more than £14,000. This includes the generous gift of £5,000 from Messrs. Brunner, Mond, Ltd.; £1,000 each from Lord Glenconner, Sir Hugh Bell, Sir Ralph C. Forster, Sir Robert Hadfield, Mr. Robert Mond, and Mr. J. B. Noble; and £500 each from the president of the British Science Guild (Sir William Mather), Mr. Charles Hawksley, and Miss Lilias Noble.

A memorial tablet, including a medallion portrait of Ramsay, is to be erected in the University of Glasgow, of which he was a graduate and teacher. The University Court has arranged that the memorial, which is designed by Sir John J. Burnet, shall be placed in a conspicuous position at the entrance to the Bute Hall.

SMITHSONIAN BOTANICAL EXPEDITIONS

A RECENT pamphlet on the field-work conducted by and for the Smithsonian Institution states that, while carrying on botanical explorations in Venezuela last fall, Dr. J. N. Rose, associate curator of plants in the National Museum, secured some interesting specimens of "sabadilla," a Venezuelan plant of the lily family, from the seeds of which are produced some of the asphyxiating and tear-producing gases used in the present war.

The specimens were secured by Dr. Rose through the cooperation of Consul Homer Brett, La Guaira, Venezuela, who stated in a report of the Department of Commerce, some time ago, that this plant is known locally as "cevadilla," a diminutive of the Spanish word "cebada," meaning barley, and occurs in Venezuela and Mexico. Its highly poisonous seeds have long been used in medicine. The substances produced from sabadilla seed are cavadine, or crystallized veratrin, an alkaloid; veratric acid, and sabadilline, a heart stimulant.

Neither the consular report nor the Smithsonian pamphlet gives the formula for the manufacture of the war gases, but it is stated

in the former that the dust from the seed in the field irritated the eyes, throat, and especially the nose, so much that the native laborers were obliged to wear masks. It has been reported that the Germans had bought all the available supply of these seeds before the declaration of war. Both the sabadilla seeds and all preparations compounded from them are now, however, declared contraband by England.

Another plant of the same genus grows wild in Texas, and some botanists believe that should a need for sabadilla arise here it could easily be cultivated in Texas and in other southern states. Dr. Rose collected many other specimens during his trip, primarily in the mountains about Caracas and Puerto Cabello, where he made an especial search for cacti and orchids.

Mr. Paul C. Standley, another botanist of the National Museum, spent three weeks in the vicinity of Fort Myers, on the west coast of southern Florida, collecting plants and studying the local flora. He was later detailed for field-work in New Mexico, and remained for four weeks at Ute Park, where he gathered over 5,000 specimens, including several genera new to the state, and many additional species. During his work, he secured the largest collection of cryptogams, the flowerless plants propagated by spores or simple cell division, ever obtained in New Mexico. This collection includes about 300 species of fungi not previously found in this state.

The Smithsonian pamphlet also describes the botanical explorations of Professor A. S. Hitchcock in the Hawaiian Islands, a report of which will be published shortly.

WAR SERVICE FOR CHEMISTS[1]

Chemists and chemical engineers are normally needed in almost all branches of industry (including the standardization and control of food products) for the successful operation of processes, the detection and speedy correction of difficulties and the improvement of products. England, France and Italy found it necessary to recall all chemists from the ranks; Canada does not allow chemists to enlist; chemists have saved Germany up to the present time.

There was a decided shortage in the supply of chemists in the United States even before April, 1914. The war has made the shortage acute, and it is certain that our own war needs and industries necessary to war will absorb chemists as rapidly as they can be trained.

It takes from four to seven years to *train* a chemist. The shorter time is for college graduates and chemical engineers who become wholly useful only after a further year of experience in a manufacturing plant or laboratory (corresponding to the hospital year required of medical students). The longer time is for the training of research men taking the doctorate degree in chemistry, on whose shoulders ultimately the vast need of the government and the industries fall for meeting and solving new difficulties and problems of organized research.

When chemists of mature years are called in for service in government laboratories, their places must be filled by younger men to keep the machinery working. It is, therefore, of the greatest importance that steps be taken:

1. To keep and impress into service *in chemical* lines chemists drawn by the draft for service in the United States Army or Navy.

2. To provide means for keeping open sources of supply of chemists from universities, colleges, and schools of technology, and to procure volunteers in chemistry.

A tentative plan for accomplishing these results is hereby appended and recommended.

William H. Nichols, *chairman of the Chemistry Committee, National Defense Council.* Past-president, Society of Chemical Industry. President, Eighth International Congress of Applied Chemistry.

Marston T. Bogert, *chairman of the Chemistry Committee, National Research Council.* Past-president, American Chemical Society.

[1] Report to the Council of National Defense.